

### Amendments to the Specification:

Please replace Table 1 on page 5, with the following Table 1.

**Table 1 The TRUTH table of Pattern Generator**

| S  | D | V  | S   | D | V   | S   | D | V   | S   | D | V   | S   | D  | V   | S   | D  | V   | S   | D  | V   | S   | D  | V   | S   | D  | V  | S   | D  | V  |
|----|---|----|-----|---|-----|-----|---|-----|-----|---|-----|-----|----|-----|-----|----|-----|-----|----|-----|-----|----|-----|-----|----|----|-----|----|----|
| 0  | 0 | 16 | 60  | 1 | 61  | 120 | 3 | 191 | 180 | 3 | 376 | 240 | 1  | 478 | 300 | 0  | 493 | 360 | -2 | 423 | 420 | -4 | 265 | 480 | -2 | 98 | 540 | -1 | 23 |
| 1  | 0 | 16 | 61  | 2 | 63  | 121 | 3 | 194 | 181 | 2 | 378 | 241 | 1  | 479 | 301 | -1 | 492 | 361 | -2 | 421 | 421 | -3 | 261 | 481 | -2 | 96 | 541 | 0  | 23 |
| 2  | 0 | 16 | 62  | 1 | 64  | 122 | 2 | 196 | 182 | 3 | 381 | 242 | 1  | 480 | 302 | 0  | 492 | 362 | -1 | 420 | 422 | -3 | 258 | 482 | -2 | 94 | 542 | -1 | 22 |
| 3  | 1 | 17 | 63  | 2 | 66  | 123 | 3 | 199 | 183 | 2 | 383 | 243 | 0  | 480 | 303 | -1 | 491 | 363 | -2 | 418 | 423 | -4 | 254 | 483 | -1 | 93 | 543 | 0  | 22 |
| 4  | 0 | 17 | 64  | 1 | 67  | 124 | 3 | 202 | 184 | 2 | 385 | 244 | 1  | 481 | 304 | 0  | 491 | 364 | -2 | 416 | 424 | -4 | 250 | 484 | -2 | 91 | 544 | -1 | 21 |
| 5  | 0 | 17 | 65  | 2 | 69  | 125 | 3 | 205 | 185 | 3 | 388 | 245 | 1  | 482 | 305 | -1 | 490 | 365 | -2 | 414 | 425 | -4 | 246 | 485 | -2 | 89 | 545 | 0  | 21 |
| 6  | 0 | 17 | 66  | 1 | 70  | 126 | 3 | 208 | 186 | 2 | 390 | 246 | 1  | 483 | 306 | 0  | 490 | 366 | -2 | 412 | 426 | -4 | 242 | 486 | -2 | 87 | 546 | -1 | 20 |
| 7  | 0 | 17 | 67  | 2 | 72  | 127 | 3 | 211 | 187 | 2 | 392 | 247 | 1  | 484 | 307 | -1 | 489 | 367 | -2 | 410 | 427 | -4 | 238 | 487 | -2 | 85 | 547 | 0  | 20 |
| 8  | 1 | 18 | 68  | 1 | 73  | 128 | 4 | 215 | 188 | 2 | 394 | 248 | 0  | 484 | 308 | 0  | 489 | 368 | -2 | 408 | 428 | -3 | 235 | 488 | -1 | 84 | 548 | -1 | 19 |
| 9  | 0 | 18 | 69  | 2 | 75  | 129 | 3 | 218 | 189 | 3 | 397 | 249 | 1  | 485 | 309 | -1 | 488 | 369 | -3 | 405 | 429 | -4 | 231 | 489 | -2 | 82 | 549 | 0  | 19 |
| 10 | 0 | 18 | 70  | 2 | 77  | 130 | 3 | 221 | 190 | 2 | 399 | 250 | 1  | 486 | 310 | -1 | 487 | 370 | -2 | 403 | 430 | -3 | 228 | 490 | -2 | 80 | 550 | 0  | 19 |
| 11 | 0 | 18 | 71  | 1 | 78  | 131 | 3 | 224 | 191 | 2 | 401 | 251 | 1  | 487 | 311 | 0  | 487 | 371 | -2 | 401 | 431 | -4 | 224 | 491 | -2 | 78 | 551 | -1 | 18 |
| 12 | 1 | 19 | 72  | 2 | 80  | 132 | 4 | 228 | 192 | 2 | 403 | 252 | 0  | 487 | 312 | -1 | 486 | 372 | -2 | 399 | 432 | -3 | 221 | 492 | -1 | 77 | 552 | 0  | 18 |
| 13 | 0 | 19 | 73  | 2 | 82  | 133 | 3 | 231 | 193 | 2 | 405 | 253 | 1  | 488 | 313 | -1 | 485 | 373 | -2 | 397 | 433 | -3 | 218 | 493 | -2 | 75 | 553 | 0  | 18 |
| 14 | 0 | 19 | 74  | 2 | 84  | 134 | 4 | 235 | 194 | 3 | 408 | 254 | 1  | 489 | 314 | -1 | 484 | 374 | -3 | 394 | 434 | -3 | 215 | 494 | -2 | 73 | 554 | 0  | 18 |
| 15 | 1 | 20 | 75  | 1 | 85  | 135 | 3 | 238 | 195 | 2 | 410 | 255 | 0  | 489 | 315 | 0  | 484 | 375 | -2 | 392 | 435 | -4 | 211 | 495 | -1 | 72 | 555 | -1 | 17 |
| 16 | 0 | 20 | 76  | 2 | 87  | 136 | 3 | 241 | 196 | 2 | 412 | 256 | 1  | 490 | 316 | -1 | 483 | 376 | -2 | 390 | 436 | -3 | 208 | 496 | -2 | 70 | 556 | 0  | 17 |
| 17 | 1 | 21 | 77  | 2 | 89  | 137 | 4 | 245 | 197 | 2 | 414 | 257 | 0  | 490 | 317 | -1 | 482 | 377 | -2 | 388 | 437 | -3 | 205 | 497 | -1 | 69 | 557 | 0  | 17 |
| 18 | 0 | 21 | 78  | 2 | 91  | 138 | 4 | 249 | 198 | 2 | 416 | 258 | 1  | 491 | 318 | -1 | 481 | 378 | -3 | 385 | 438 | -3 | 202 | 498 | -2 | 67 | 558 | 0  | 17 |
| 19 | 1 | 22 | 79  | 2 | 93  | 139 | 4 | 253 | 199 | 2 | 418 | 259 | 0  | 491 | 319 | -1 | 480 | 379 | -2 | 383 | 439 | -3 | 199 | 499 | -1 | 66 | 559 | 0  | 17 |
| 20 | 0 | 22 | 80  | 1 | 94  | 140 | 3 | 256 | 200 | 2 | 420 | 260 | 1  | 492 | 320 | 0  | 480 | 380 | -2 | 381 | 440 | -3 | 196 | 500 | -2 | 64 | 560 | -1 | 16 |
| 21 | 1 | 23 | 81  | 2 | 96  | 141 | 4 | 260 | 201 | 1 | 421 | 261 | 0  | 492 | 321 | -1 | 479 | 381 | -3 | 378 | 441 | -2 | 194 | 501 | -1 | 63 | 561 | 0  | 16 |
| 22 | 0 | 23 | 82  | 2 | 98  | 142 | 4 | 264 | 202 | 2 | 423 | 262 | 1  | 493 | 322 | -1 | 478 | 382 | -2 | 376 | 442 | -3 | 191 | 502 | -2 | 61 | 562 | 0  | 16 |
| 23 | 1 | 24 | 83  | 2 | 100 | 143 | 4 | 268 | 203 | 2 | 425 | 263 | 0  | 493 | 323 | -1 | 477 | 383 | -3 | 373 | 443 | -3 | 188 | 503 | -1 | 60 | 563 | 0  | 16 |
| 24 | 0 | 24 | 84  | 2 | 102 | 144 | 4 | 272 | 204 | 2 | 427 | 264 | 1  | 494 | 324 | -1 | 476 | 384 | -2 | 371 | 444 | -3 | 185 | 504 | -2 | 58 |     |    |    |
| 25 | 1 | 25 | 85  | 2 | 104 | 145 | 4 | 276 | 205 | 2 | 429 | 265 | 0  | 494 | 325 | -1 | 475 | 385 | -3 | 368 | 445 | -3 | 182 | 505 | -1 | 57 |     |    |    |
| 26 | 0 | 25 | 86  | 2 | 106 | 146 | 3 | 279 | 206 | 1 | 430 | 266 | 1  | 495 | 326 | -1 | 474 | 386 | -2 | 366 | 446 | -2 | 180 | 506 | -2 | 55 |     |    |    |
| 27 | 1 | 26 | 87  | 3 | 109 | 147 | 4 | 283 | 207 | 2 | 432 | 267 | 0  | 495 | 327 | -2 | 472 | 387 | -3 | 363 | 447 | -3 | 177 | 507 | -1 | 54 |     |    |    |
| 28 | 1 | 27 | 88  | 2 | 111 | 148 | 3 | 286 | 208 | 2 | 434 | 268 | 0  | 495 | 328 | -1 | 471 | 388 | -2 | 361 | 448 | -3 | 174 | 508 | -1 | 53 |     |    |    |
| 29 | 0 | 27 | 89  | 2 | 113 | 149 | 4 | 290 | 209 | 2 | 436 | 269 | 1  | 496 | 329 | -1 | 470 | 389 | -3 | 358 | 449 | -3 | 171 | 509 | -2 | 51 |     |    |    |
| 30 | 1 | 28 | 90  | 2 | 115 | 150 | 3 | 293 | 210 | 1 | 437 | 270 | 0  | 496 | 330 | -1 | 469 | 390 | -2 | 356 | 450 | -2 | 169 | 510 | -1 | 50 |     |    |    |
| 31 | 1 | 29 | 91  | 2 | 117 | 151 | 3 | 296 | 211 | 2 | 439 | 271 | 0  | 496 | 331 | -1 | 468 | 391 | -3 | 353 | 451 | -3 | 166 | 511 | -1 | 49 |     |    |    |
| 32 | 1 | 30 | 92  | 3 | 120 | 152 | 3 | 299 | 212 | 2 | 441 | 272 | 0  | 496 | 332 | -2 | 466 | 392 | -2 | 351 | 452 | -3 | 163 | 512 | -1 | 48 |     |    |    |
| 33 | 0 | 30 | 93  | 2 | 122 | 153 | 4 | 303 | 213 | 1 | 442 | 273 | 1  | 497 | 333 | -1 | 465 | 393 | -3 | 348 | 453 | -2 | 161 | 513 | -2 | 46 |     |    |    |
| 34 | 1 | 31 | 94  | 2 | 124 | 154 | 3 | 306 | 214 | 2 | 444 | 274 | 0  | 497 | 334 | -1 | 464 | 394 | -3 | 345 | 454 | -3 | 158 | 514 | -1 | 45 |     |    |    |
| 35 | 1 | 32 | 95  | 2 | 126 | 155 | 3 | 309 | 215 | 1 | 445 | 275 | 0  | 497 | 335 | -1 | 463 | 395 | -2 | 343 | 455 | -2 | 156 | 515 | -1 | 44 |     |    |    |
| 36 | 1 | 33 | 96  | 3 | 129 | 156 | 3 | 312 | 216 | 2 | 447 | 276 | 0  | 497 | 336 | -2 | 461 | 396 | -3 | 340 | 456 | -3 | 153 | 516 | -1 | 43 |     |    |    |
| 37 | 1 | 34 | 97  | 2 | 131 | 157 | 3 | 315 | 217 | 1 | 448 | 277 | 0  | 497 | 337 | -1 | 460 | 397 | -3 | 337 | 457 | -2 | 151 | 517 | -1 | 42 |     |    |    |
| 38 | 0 | 34 | 98  | 2 | 133 | 158 | 3 | 318 | 218 | 2 | 450 | 278 | 1  | 498 | 338 | -1 | 459 | 398 | -3 | 334 | 458 | -3 | 148 | 518 | -2 | 40 |     |    |    |
| 39 | 1 | 35 | 99  | 3 | 136 | 159 | 2 | 320 | 219 | 1 | 451 | 279 | 0  | 498 | 339 | -2 | 457 | 399 | -2 | 332 | 459 | -2 | 146 | 519 | -1 | 39 |     |    |    |
| 40 | 1 | 36 | 100 | 2 | 138 | 160 | 3 | 323 | 220 | 2 | 453 | 280 | 0  | 498 | 340 | -1 | 456 | 400 | -3 | 329 | 460 | -3 | 143 | 520 | -1 | 38 |     |    |    |
| 41 | 1 | 37 | 101 | 3 | 141 | 161 | 3 | 326 | 221 | 1 | 454 | 281 | 0  | 498 | 341 | -2 | 454 | 401 | -3 | 326 | 461 | -2 | 141 | 521 | -1 | 37 |     |    |    |
| 42 | 1 | 38 | 102 | 2 | 143 | 162 | 3 | 329 | 222 | 2 | 456 | 282 | 0  | 498 | 342 | -1 | 453 | 402 | -3 | 323 | 462 | -3 | 138 | 522 | -1 | 36 |     |    |    |
| 43 | 1 | 39 | 103 | 3 | 146 | 163 | 3 | 332 | 223 | 1 | 457 | 283 | 0  | 498 | 343 | -2 | 451 | 403 | -3 | 320 | 463 | -2 | 136 | 523 | -1 | 35 |     |    |    |
| 44 | 1 | 40 | 104 | 2 | 148 | 164 | 2 | 334 | 224 | 2 | 459 | 284 | 0  | 498 | 344 | -1 | 450 | 404 | -2 | 318 | 464 | -3 | 133 | 524 | -1 | 34 |     |    |    |
| 45 | 2 | 42 | 105 | 3 | 151 | 165 | 3 | 337 | 225 | 1 | 460 | 285 | -1 | 497 | 345 | -2 | 448 | 405 | -3 | 315 | 465 | -2 | 131 | 525 | 0  | 34 |     |    |    |
| 46 | 1 | 43 | 106 | 2 | 153 | 166 | 3 | 340 | 226 | 1 | 461 | 286 | 0  | 497 | 346 | -1 | 447 | 406 | -3 | 312 | 466 | -2 | 129 | 526 | -1 | 33 |     |    |    |
| 47 | 1 | 44 | 107 | 3 | 156 | 167 | 3 | 343 | 227 | 2 | 463 | 287 | 0  | 497 | 347 | -2 | 445 | 407 | -3 | 309 | 467 | -3 | 126 | 527 | -1 | 32 |     |    |    |
| 48 | 1 | 45 | 108 | 2 | 158 | 168 | 2 | 345 | 228 | 1 | 464 | 288 | 0  | 497 | 348 | -1 | 444 | 408 | -3 | 306 | 468 | -2 | 124 | 528 | -1 | 31 |     |    |    |
| 49 | 1 | 46 | 109 | 3 | 161 | 169 | 3 | 348 | 229 | 1 | 465 | 289 | 0  | 497 | 349 | -2 | 442 | 409 | -3 | 303 | 469 | -2 | 122 | 529 | -1 | 30 |     |    |    |
| 50 | 2 | 48 | 110 | 2 | 163 | 170 | 3 | 351 | 230 | 1 | 466 | 290 | -1 | 496 | 350 | -1 | 441 | 410 | -4 | 299 | 470 | -2 | 120 | 530 | 0  | 30 |     |    |    |
| 51 | 1 | 49 | 111 | 3 | 166 | 171 | 2 | 353 | 231 | 2 | 468 | 291 | 0  | 496 | 351 | -2 | 439 | 411 | -3 | 296 | 471 | -3 | 117 | 531 | -1 | 29 |     |    |    |
| 52 | 1 | 50 | 112 | 3 | 169 | 172 | 3 | 356 | 232 | 1 | 469 | 292 | 0  | 496 | 352 | -2 | 437 | 412 | -3 | 293 | 472 | -2 | 115 | 532 | -1 | 28 |     |    |    |
| 53 | 1 | 51 | 113 | 2 | 171 | 173 | 2 | 358 | 233 | 1 | 470 | 293 | 0  | 496 | 353 | -1 | 436 | 413 | -3 | 290 | 473 | -2 | 113 | 533 | -1 | 27 |     |    |    |
| 54 | 2 | 53 | 114 | 3 | 174 | 174 | 3 | 361 | 234 | 1 | 471 | 294 | -1 | 495 | 354 | -2 | 434 | 414 | -4 | 286 | 474 | -2 | 111 | 534 | 0  | 27 |     |    |    |
| 55 | 1 | 54 | 115 | 2 | 177 | 175 | 2 | 363 | 235 | 1 | 472 | 295 | 0  | 495 | 355 | -2 | 432 | 415 | -3 | 283 | 475 | -2 | 109 | 535 | -1 | 26 |     |    |    |
| 56 | 1 | 55 | 116 | 3 | 180 | 176 | 3 | 366 | 236 | 2 | 474 | 296 | 0  | 495 | 356 | -2 | 430 | 416 | -4 | 279 | 476 | -3 | 106 | 536 | -1 | 25 |     |    |    |
| 57 | 2 | 57 | 117 | 2 | 182 | 177 | 2 |     |     |   |     |     |    |     |     |    |     |     |    |     |     |    |     |     |    |    |     |    |    |

*Please replace Table 2 on page7, with the following Table 2.*

**Table 2 Example of pattern generator table**

| Count | Pattern | DELTA T | Delta T |
|-------|---------|---------|---------|
| 0     | 0       | 0       | 0.00%   |
| 1     | 1       | 1       | 0.05%   |
| 2     | 3       | 2       | 0.10%   |
| 3     | 6       | 3       | 0.15%   |
| 4     | 10      | 4       | 0.20%   |
| 5     | 13      | 3       | 0.15%   |
| 6     | 15      | 2       | 0.10%   |
| 7     | 16      | 1       | 0.05%   |
| 8     | 16      | 0       | 0.00%   |
| 9     | 15      | -1      | -0.05%  |
| 10    | 13      | -2      | -0.10%  |
| 11    | 10      | -3      | -0.15%  |
| 12    | 6       | -4      | -0.20%  |
| 13    | 3       | -3      | -0.15%  |
| 14    | 1       | -2      | -0.10%  |
| 15    | 0       | -1      | -0.05%  |